National Weather Service
Product Description Document (PDD)

RIDGE – Radar Integrated Display with Geospatial Elements

Part 1 - Mission Connection

1. Product Description:

NWS is responsible for making its weather, water and climate information widely available to taxpayers using commonly accepted standards and technologies. Currently, the NWS provides weather radar information from all Weather Service Doppler Radars (WSR - 88D) in the United States on the NWS Internet page.

The National Weather Service Southern Region, working in cooperation with the North Central Texas Council of Governments, has developed a new method to display radar images more efficiently. This method, called RIDGE (Radar Integrated Display with Geospatial Elements), allows the displayed radar image to be combined with geospatial elements such as topography maps, highways, and county boundaries. This not only produces a better image, but provides additional reference information which better enables users to identify their location in relation to the radar features on the map.

2. Purpose/Intended Use:

The purpose of the radar images is to improve the quality of life-saving information to the public. In addition, this methodology improves on the production of radar information and makes the dissemination of the information more efficient and timely.

3. Audience:

The images produced by this methodology are intended to meet a wide range of customer needs. Any person with Internet access can utilize this product.

4. Presentation Format:

The images are in GIF format, a common image format that can be viewed on all Internet browsers. The looping feature of the pages utilize Macromedia Flash Player, a free plug-in that has been included on all major browsers for the last 7 years. This will allow a greater number of users to utilize the looping feature than the current method, which uses a Java plug-in.

5. Feedback Method:

Comments will be compiled through February 28, 2005 and will be evaluated by the appropriate NWS program managers. Feedback will be obtained through e-mail.

Technical questions may be addressed to: Paul.Kirkwood@noaa.gov
Webpage architecture questions may be addressed to: Mike.Coyne@noaa.gov
Geospatial information questions may be addressed to: Keith.Stellman@noaa.gov

Part 2 - Technical
1. Format and Science Basis:

The radar images will be generated using .NET technology to compose the image. Tcl/tk programming is used to maintain webpages and coordinate the generation of images. The radar information will come directly from WSR-88D Archive IV files. Geospatial elements are derived from GIS files available from the United States Geographical Service (USGS), and basic overlay files available with ArcView 9.x.

2. Availability:

These images will be available 24-hours/day, seven days a week by visiting the website www.srh.noaa.gov/ridge/. The images will be generated for selected cities beginning at the start of the experimental period, with additional radars phased in over time.

3. Additional Information: These experimental images will be tested at all Southern Region Weather Forecast Offices.